AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method of boring a tunnel by means of an earth pressure balance tunnel boring machine, comprising the injection at the cutting head of a foamed aqueous surfactant solution and an aqueous solution of a water-soluble acrylic acid-based polymer.

2. (Currently Amended) A method according to claim 1, in which the foamed aqueous surfactant solution ~~for foaming~~ and the aqueous solution of a water-soluble acrylic acid-based polymer ~~is~~ are added as a single material.

3. (Original) A foaming solution for use with earth pressure balance tunnel boring machines, comprising an aqueous solution of an acrylic acid-based polymer and an anionic surfactant selected from sulphate esters, sulphate ethers and sulphonates.

4. (Original) A foaming solution according to claim 3, in which the surfactant is a lauryl ether sulphate, whose ether portion consists of two oxyethyl units maximum.

5. (New) A foaming solution according to claim 3, wherein the surfactant comprises a polyalkylene alkyl ether sulphate.

6. (New) A foaming solution according to claim 5, wherein the polyalkylene oxide chain of the polyalkylene alkyl ether sulphate has an average chain length of from 1-3 alkylene oxide units.

7. (New) A foaming solution according to claim 3, wherein the surfactant comprises at least one of α-olefin sulphonate, C_{8-22} fatty alcohol sulphate salts, C_{8-22} fatty alcohol ether sulphate salts or mixtures thereof.

8. (New) A foaming solution according to claim 3, wherein the surfactant comprises monoisopropanol ammonium lauryl alcohol sulphate.

9. (New) A foaming solution according to claim 7, wherein the C_{8-22} fatty alcohol ether sulphate salts comprise at least one of:

a. lauryl alcohol;

b. an ether formed with an alkylene oxide chain of from 1 to 3 alkylene oxide units; or

c. a salt forming cation selected from alkali metal, magnesium and alkanolamine.

10. (New) A foaming solution according to claim 3, wherein the acrylic acid-based polymer has a molecular weight from 2,000 to 20,000.

11. (New) A foaming solution according to claim 3, wherein the acrylic acid-based polymer has a molecular weight from 2,000 to 10,000.

12. (New) A foaming solution according to claim 3, wherein the acrylic acid-based polymer is derived from acrylic acid.

13. (New) A foaming solution according to claim 3, wherein the acrylic acid-based polymer is a salt.

14. (New) A foaming solution according to claim 13, wherein the acrylic acid-based polymer salt comprises a monovalent cation that is at least one of sodium, potassium, ammonium, tertiary amine, quaternary amine or mixtures thereof.

15. (New) A method according to claim 1, wherein the foamed aqueous surfactant solution and the aqueous solution of water-soluble acrylic acid-based polymer are added separately.

16. (New) A method according to claim 1, wherein the foamed aqueous surfactant solution is injected at a rate of from 0.2 to 4 Kg dry material per cubic meter of excavated soil.

17. (New) A method according to claim 1, wherein the foamed aqueous surfactant solution is injected at a rate of from 0.5 to 2 Kg dry material per cubic meter of excavated soil.

18. (New) A method according to claim 1, wherein the acrylic acid-based polymer is injected at a rate of from 0.05 to 2 Kg dry polymer per cubic meter of excavated soil.

19. (New) A method according to claim 1, wherein the acrylic acid-based polymer is injected at a rate of from 0.1 to 1 Kg dry polymer per cubic meter of excavated soil.

20. (New) A method according to claim 1, wherein the acrylic acid-based polymer is injected at a rate of from 0.2 to 0.5 Kg dry polymer per cubic meter of excavated soil.